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(SHIBUYA, Takashi) [JP/JP]; 〒700-0907 岡山県岡山市下石井1丁目2番3号 株式会社林原生物化学研究所内 Okayama (JP). 福田 恵温 (FUKUDA, Shigeharu) [JP/JP]; 〒700-0907 岡山県岡山市下石井1丁目2番3号 株式会社林原生物化学研究所内 Okayama (JP). 三宅 俊雄 (MIYAKE, Toshio) [JP/JP]; 〒700-0907 岡山県岡山市下石井1丁目2番3号 株式会社林原生物化学研究所内 Okayama (JP).

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(54) Title: REFINED ROYAL JELLY

(54) 発明の名称: 精製ローヤルゼリー

(57) Abstract: It is intended to provide refined royal jelly which has a lessened allergenicity but sustains the useful pharmacological effects inherent to royal jelly, a process for producing the same and use thereof. In the refined royal jelly as described above, the content of water-soluble proteins is lessened to 50% by weight or below based on the total protein content. The process for producing the same is characterized by comprising the step of adding water to royal jelly and centrifuging to thereby divide the mixture into a precipitate and a supernatant containing water-soluble proteins, the step of subjecting the obtained supernatant to ultrafiltration or gel filtration to thereby remove high-molecular weight substances containing the water-soluble proteins and collect low-molecular weight substances, and the step of mixing the low-molecular weight substances thus obtained with the precipitate as described above.

/続葉有/

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11311

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ A23L1/076, A61K7/00, 7/48, A23K1/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ A23L1/076, A61K7/00, 7/48, A23K1/16

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 4-311357 A (Api Kabushiki Kaisha), 04 November, 1992 (04.11.92), Full text; particularly, Claim 2; examples 1 to 6 (Family: none)	1-3, 5, 6, 9-12 4, 7, 8
X Y	JP 2001-61418 A (Pola Chemical Industries Inc.), 13 March, 2001 (13.03.01), Full text; particularly, Claims 1, 4; Par. Nos. [0008], [0009], [0011] (Family: none)	1-3, 5, 6, 9-12 4, 7, 8
Y	JP 2000-60455 A (Api Kabushiki Kaisha), 29 February, 2000 (29.02.00), Par. No. [0011] (Family: none)	4

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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Date of the actual completion of the international search
01 December, 2003 (01.12.03)Date of mailing of the international search report
16 December, 2003 (16.12.03)Name and mailing address of the ISA/
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11311

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5543513 A (Kabushiki Kaisha Hayashibara; Seibutsu Kagaku Kenkyujo), 06 August, 1996 (06.08.96), Full text; particularly, column 6, line 58 to column 7, line 15 & EP 600730 A1 & AU 9352033 A & CA 2110331 A & CN 1094054 A & TW 308555 A & US 5693788 A & JP 6-170221 A	7,8
A	JP 2002-112715 A (Api Kabushiki Kaisha), 16 April, 2002 (16.04.02), Par. No. [0012] (Family: none)	1-12
A	JP 11-146759 A (Kirin Beverage Kabushiki Kaisha), 02 June, 1999 (02.06.99), Full text (Family: none)	1-12